

ISIS - Feature #961

Control Net One Gui Requirement: Programmatically saving SPICE, footprints, etc.

2012-06-28 01:35 PM - Steven Lambright

Status:	Closed	
Priority:	Normal	
Assignee:	Steven Lambright	
Category:	Infrastructure	
Target version:	N/A	
Impact:		Software Version:
Description We need a way to save SPICE, footprints, camstats results, histories, etc... without copying cube DN data in order to have many versions of cubes (quick and efficient) in our single GUI control program. This is a requirement for importing images into projects. Also, cubes MUST be able to copy themselves (why can't they now?). Going through the Process classes is too cumbersome. To accomplish these tasks, we're giving Cube a "copy" method. We're also giving cubes the ability to write labels (and blobs) into one file, referencing DN data from the original location. We're calling these "external" cube label files (they do contain blobs). Their file extension will be "ecub" - but users will not see these unless they look inside of our project files. We are refactoring cube attributes (these encapsulate strings such as +Lsb+Bsq on command line) in order to support these external labels and in preparation for future work.		
Related issues: Related to ISIS - Feature #903: Isis FileName class missing operator!= Closed		

History

#1 - 2012-06-28 01:39 PM - Steven Lambright

A serious problem with cube attributes not reporting unrecognized values was found (I could type +RedGreenBlue and it would completely ignore it, or more problematic +Lsbb and it would ignore it).

Also, the cube attributes are being way too verbose about converting back to strings - they shouldn't add attributes that are already implicit and are unchanged. For example:

```
1) run cubeatt
2) type "a.cub" for the TO file
3) Hit "Change Attributes..." for the TO file
4) Hit "Ok"
-- Notice: No change to the TO file.
5) Hit "Change Attributes..." for the TO file
6) Change the cube format from Tiled to BSQ
7) Hit "Ok"
-- Notice: +BandSequential+Lsb+Attached
Why did Lsb/Attached show up??
```

#2 - 2012-06-28 02:21 PM - Steven Lambright

IMPACT

The command line will be picky about the things after your "+" being understandable. Only changed attributes will come up when you select them through the GUI. Places where we store attributes should better remember the user-entered string instead of a regenerated version of it. No other

changes are expected. Bugs could impact anything in Isis that reads/writes cube files in unusual ways or displays cube attributes.

#3 - 2012-07-02 04:17 PM - Steven Lambright

Well... it turns out cube attributes didn't do a very good job with invalid ranges. There was a fundamental flaw with output cubes' attributes relating to the min/max values (0.0:255 for example) where it didn't correctly handle special cases (have a min but no max, have a max but no min, have neither, etc..) where it would report '0' as the min or max when it should have reported 'uninitialized.' This could cause bugs if users of this class don't test propagateMinMax correctly.